

gine is designed to provide high speed and long-range for very heavy military bombers and transports. Turbo-props, it is expected,

will be widely used in the near future on most long-range commercial airliners.

Science News Letter, June 3, 1950

#### ZOOLOGY

## Clue to Suicide Marches

➤ TINY insects may be the cause of the famed lemming suicide marches to the sea. Dr. Neal A. Weber, zoologist at Swarthmore College, has discovered that insects play an important role in the life cycle of the rodent-like creatures of the Arctic.

Every school boy has been told about the impetuous marches of the lemmings to drown themselves in the sea. These vast migrations, during which the number of lemmings actually increase by numerous births, occur at irregular intervals.

Studying lemming nests in Alaska, Dr. Weber discovered evidence that mites, flies and hard-shelled insects make their homes in the lemmings' nests. As the lemmings multiply, so do the insects. When the lemming population becomes too large to be supported on the vegetation of the area in which it lives, then multitudes begin to migrate. Dr. Weber studied the nests of lemmings known to zoologists as *Dicrostonyx rubricatus* and *Lemmus alascensis*.

Dr. Weber does not know exactly what effect these insects have on the growth of lemming populations. Mites, for instance, which carry diseases, might tend to inhibit population growth. But the hard-shelled insects might provide extra proteins for both the adult and the young lemmings, thus stimulating population growth.

The zoologist is going back to the Arctic regions of Alaska this summer to try to find out more about these furry members of the mouse family. Although the lemmings of Alaska do not take part in such vast or such extensive migrations as their cousins in Scandinavia, their living and breeding habits are similar.

Early stories about the European lemmings had it that they are not born here, but fall from the sky, and this legend still persists among some peasants in far northern Norway, Sweden and Finland. The story was first carried to Rome in 1522 by two archbishops from Trondheim in Norway.

The first dated suicide march of the five-inch long yellowish brown creatures was in 1579, when a mass of lemmings was seen near Bergen, Norway. The migrations are so vast that in 1868 a steamer entering Trondheim Fjord took a quarter hour to pass through a pack of swimming lemmings.

It was once believed that the lemmings were headed for the legendary "lost continent" of Atlantis, but some migrate toward the Arctic Ocean. Biologists believe that it is not where they are going that is important but only what they are going away from.

One book on the lemmings, by Charles Elton, says: "We begin to see this great

biological spectacle that has aroused such wonder and curiosity among naturalists and has been given a tinge of epic romance by two English poets laureate (John Massfield and Robert Bridges) as a rather tragic procession of refugees, with all the obsessed behavior of the unwanted stranger in a populous land, going blindly on to various deaths."

Science News Letter, June 3, 1950

#### MEDICINE

## Increased Protection from Vaccine Plus Vitamin

➤ GIVING the vitamin, folic acid, mixed with shots of vaccines will increase the disease protection given by the vaccine, Dr. P. A. Little, of the Lederle Laboratories, reported at the meeting of the Society of American Bacteriologists. This is because the vitamin is used by the body to build the protein material for antibodies, or germ-fighting substances, in the blood.

Science News Letter, June 3, 1950

#### GENERAL SCIENCE

## Zebra Street Crossings Improve Driver Behavior

➤ "ZEBRA" crossings at street corners improve the way both pedestrians and drivers act, and this improvement is lasting.

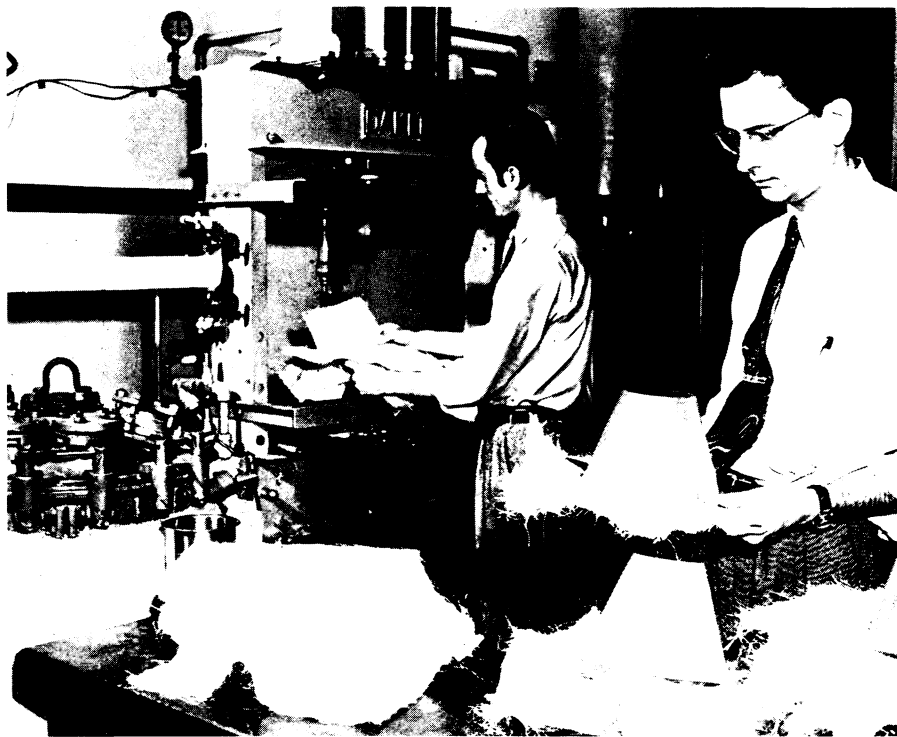
Tests made at Britain's Road Research Laboratory had shown that of all the possible ways of marking road surfaces, the pattern most easily seen by drivers was one consisting of black and white stripes laid parallel to the curb.

These markings were then made on certain crossings in London and in some outlying towns. The movements of pedestrians and drivers were observed at 25 zebra crossings and at an equal number of crossings marked only by the usual studs and beacons.

Observations were made at the time of Pedestrian Crossing Week in order to compare the effect of the markings with that of propaganda. They were continued at intervals for six months after that time.

The number of people using the zebra crossing was counted and then expressed as a percentage of the total number of people crossing the street within 20 yards of the crosswalk. Driver-behavior was assessed as the proportion of drivers who voluntarily gave way to allow pedestrians to use the crossing.

Science News Letter, June 3, 1950



**MOLDING SHOP**—The molding shop where new plastics are tested on production equipment was a highlight in the public tour which the Stamford Research Laboratories of the American Cyanamid Company recently staged. The laboratory technique for the preparation of molded pieces using fiber-glass mat and polyester resins is shown above.